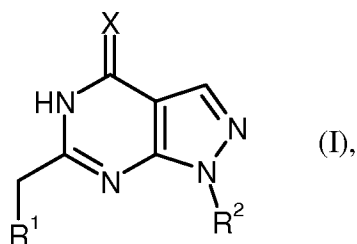


This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1. (Currently amended) A compound of the formula



in which

R<sup>1</sup> is phenyl which is substituted by 1 to 5 substituents independently of one another selected from the group of halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, trifluoromethoxy, cyano, hydroxy, nitro and C<sub>1</sub>-C<sub>6</sub>-alkoxy,

R<sup>2</sup> is pentan-3-yl, C<sub>4</sub>-C<sub>6</sub>-cycloalkyl,

X is oxygen or sulfur,

and ~~a salt, a hydrate and/or a hydrate of a salt~~ salts thereof.

2. (Currently amended) A compound as claimed in claim 1, where

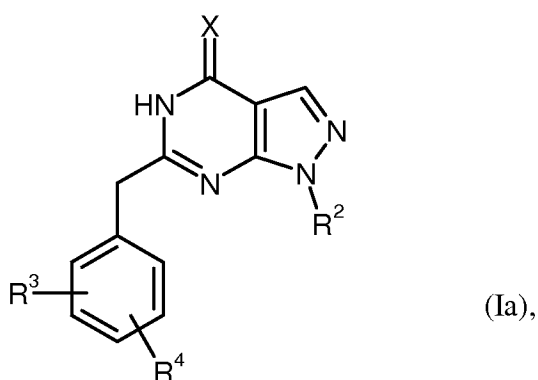
R<sup>1</sup> is phenyl which is substituted by 1 to 3 substituents independently of one another selected from the group of fluorine, chlorine, bromine, C<sub>1</sub>-C<sub>4</sub>-alkyl, trifluoromethyl, trifluoromethoxy, cyano, hydroxy, nitro and C<sub>1</sub>-C<sub>4</sub>-alkoxy,

$R^2$  is pentan-3-yl,  $C_5$ - $C_6$ -cycloalkyl,

X is oxygen or sulfur,

and ~~a salt, a hydrate and/or a hydrate of a salt~~ salts thereof.

3. **(Currently amended)** A compound as claimed in claim 1 of the formula



in which

$R^3$  is hydrogen or chlorine,

$R^4$  is fluorine, chlorine, bromine, methyl, trifluoromethyl,

$R^2$  is pentan-3-yl, cyclopentyl,

X is oxygen or sulfur,

and ~~a salt, a hydrate and/or a hydrate of a salt~~ salts thereof.

4. **(Currently amended)** A compound as claimed in claim 1 of the formula (Ia), where

$R^3$  is hydrogen or chlorine,

$R^4$  is fluorine, chlorine, bromine, methyl, trifluoromethyl,

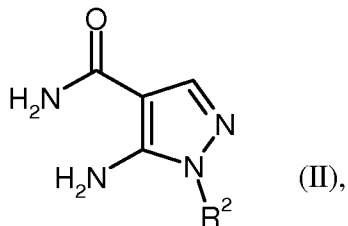
$R^2$  is pentan-3-yl, cyclopentyl,

X is oxygen,

and ~~a salt, a hydrate and/or a hydrate of a salt~~ salts thereof.

5. **(Currently amended)** A process for preparing a compound as claimed in claim 1, wherein

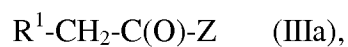
[A] a compound of the formula



in which

$R^2$  has the meanings indicated in claim 1,

is converted by reaction with a compound of the formula



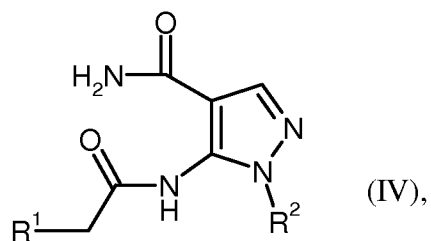
in which

$R^1$  has the meanings indicated in claim 1,

and

Z is chlorine or bromine,

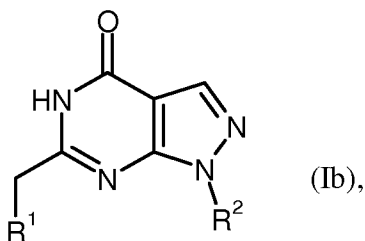
initially in the presence of a base into a compound of the formula



in which

$R^1$  and  $R^2$  have the meanings indicated in claim 1,

then cyclized in the presence of a base to ~~compounds~~ a compound of the formula

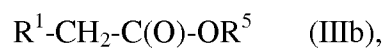


in which

R<sup>1</sup> and R<sup>2</sup> have the meanings indicated in claim 1,

or

[B] a compound of the formula (II) is reacted with direct cyclization to (Ib) with a compound of the formula



in which

R<sup>1</sup> has the meanings indicated in claim 1,

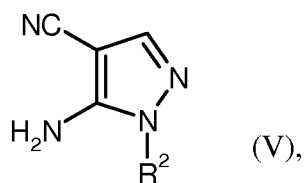
and

R<sup>5</sup> is methyl or ethyl,

in the presence of a base,

or

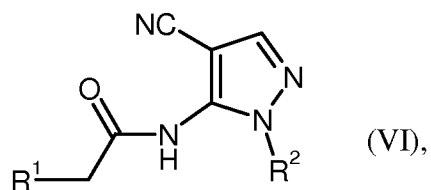
[C] a compound of the formula



in which

$R^2$  has the meanings indicated in claim 1,

is converted initially by reaction with a compound of the formula (IIIa) in the presence of a base into a compound of the formula

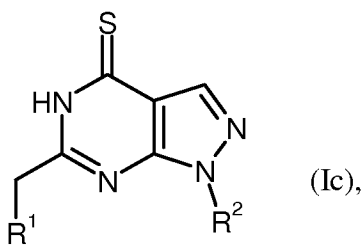


in which

$R^1$  and  $R^2$  have the meanings indicated in claim 1,

and the latter are cyclized in a second step in the presence of a base and of an oxidizing agent to (Ib),

and a compound of the formula (Ib) is then converted where appropriate by reaction with a sulfurizing agent into the thiono derivatives of the formula



in which

$R^1$  and  $R^2$  have the meanings indicated in claim 1,

and the resulting compound of the formula (I) is optionally reacted ~~where appropriate~~ with the appropriate ~~(i) solvents and/or (ii) bases or acids~~ to give the ~~hydrates, salts and/or hydrates of the salts thereof~~.

6. (Cancelled).
7. (Original) A medicament comprising at least one of the compounds as claimed in any of claims 1 to 4 and at least one pharmaceutically acceptable, essentially non-toxic carrier or excipient.
8. (Currently amended) A method for ~~improving impairments~~ treating an impairment of learning and/or memory comprising administering to a human or animal an effective amount of a compound of claim 1.
9. (Currently amended) ~~The method as claimed in claim 8, where the impairment~~ A method for treating an impairment of learning and/or memory which is a consequence of Alzheimer's disease comprising administering to a human or animal an effective amount of a compound of claim 1.
10. (Cancelled).
11. (Cancelled).
12. (Cancelled).
13. (Previously presented) The process of claim 5, wherein the sulfurizing agent is

diphosphorus pentasulfide.

- 14. (New)** A method for treating an impairment of learning and/or memory which is a consequence of: mild cognitive impairment, age-associated learning and memory impairment, age-associated memory loss, vascular dementia, craniocerebral trauma, stroke, post stroke dementia, post-traumatic dementia, general concentration impairment, concentration impairment in children with learning and memory problems, Alzheimer's disease, Lewy body dementia, dementia with degeneration of the frontal lobes, Pick's syndrome, Parkinson's disease, progressive nuclear palsy, dementia with corticobasal degeneration, amyotrophic lateral sclerosis, Huntington's disease, multiple sclerosis, thalamic degeneration, Creutzfeld-Jacob dementia, HIV dementia, schizophrenia with dementia or Korsakoff's psychosis; comprising administering to a human or animal an effective amount of a compound of claim 1.